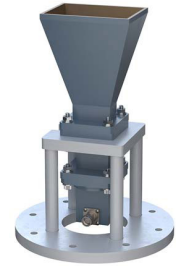


WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount



**FM1WAN090-15SM**

**Features**

- 8.2 GHz to 12.4 GHz
- WR-90 Waveguide Band
- 15 dBi Nominal Gain
- SMA Male Connector
- Ruggedized Aluminum Cage-Style Mount
- Integrates with Positioning Systems

**Applications**

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems
- Radome Testing
- Automotive Antenna Test Solutions
- Radar Cross Section
- Satellite Antenna Testing

**Description**

The FM1WAN090-15SM standard gain horn antenna with integrated cage-style mount (also known as waveguide horn) from Fairview Microwave is part of our comprehensive selection of waveguide antennas. The cage-style mount is a ruggedized aluminum mounting solution that integrates with test and measurement positioning systems, ensuring precise alignment and protection of the antenna. This standard gain horn is mated with a WR-90 to SMA Male waveguide to coaxial adapter and operates from 8.2 GHz to 12.4 GHz.

Our FM1WAN090-15SM standard gain horn antenna with integrated cage-style mount has a nominal gain of 15 dBi with a Horizontal and Vertical HPBW (Half Power Beam Width) of 31 dB and 32 dB respectively. Fairview Microwave's SMA Male to WR-90 standard gain horns are available in 10, 15 and 20 dBi models with pyramidal shape and connectorized input.

Waveguide antennas, such as the FM1WAN090-15SM are used in a wide variety of applications due to the high-power handling capability, low loss, high directivity, and near constant electrical performance. Our WR-90 waveguide antennas with SMA Male interface is part of over 40,000 RF, microwave and millimeter wave components from Fairview Microwave available worldwide and ship same day.

**Configuration**

Design	WR-90
Coaxial Interface	SMA Male

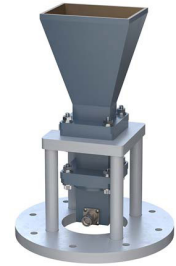
**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.4	GHz
<b>Waveguide Standard Gain Horn</b>		15		
Gain				
Horizontal Half Power Beam Width		31		Degrees
Vertical Half Power Beam Width		32		Degrees

**Mechanical Specifications**

<b>Size</b>	
Length	4.724 in [119.99 mm]
Width	4.724 in [119.99 mm]
Height	6.69 in [169.93 mm]
Weight	0.93355 lbs [423.45 g]

WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount



**FM1WAN090-15SM**

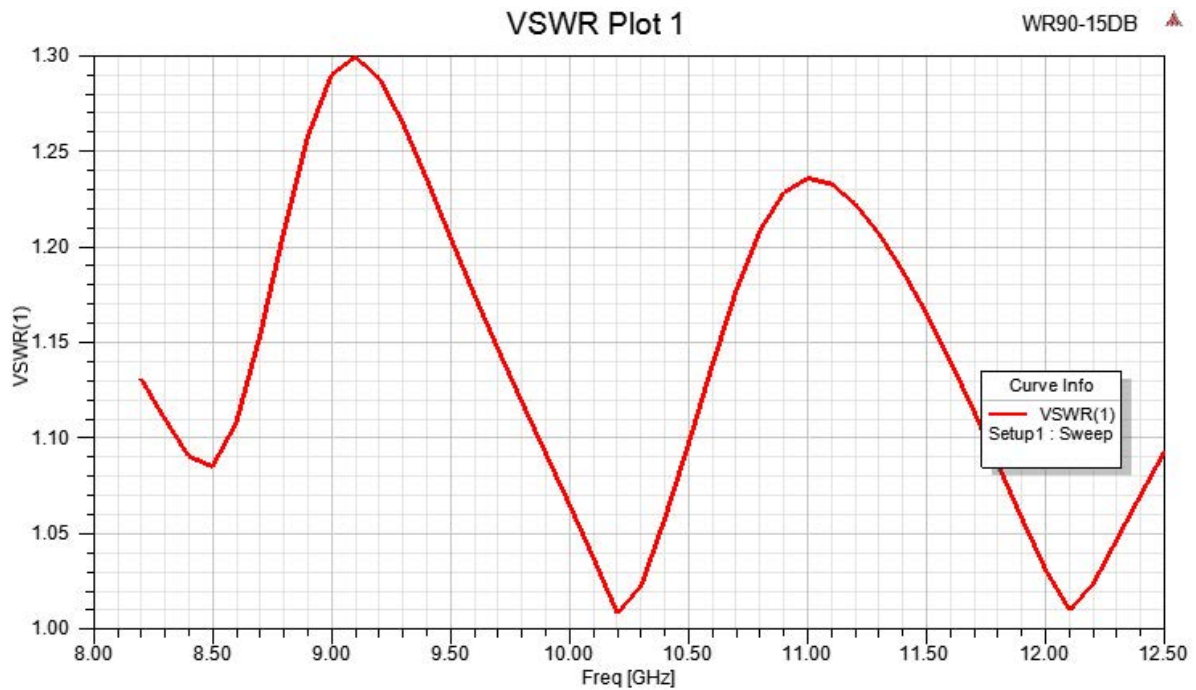
<b>RF Connector</b>	
Type	SMA Male
<b>Waveguide Interface</b>	
Waveguide Size	WR-90

**Compliance Certifications** (see [product page](#) for current document)

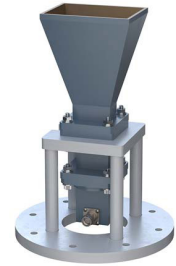
**Plotted and Other Data**

Notes:

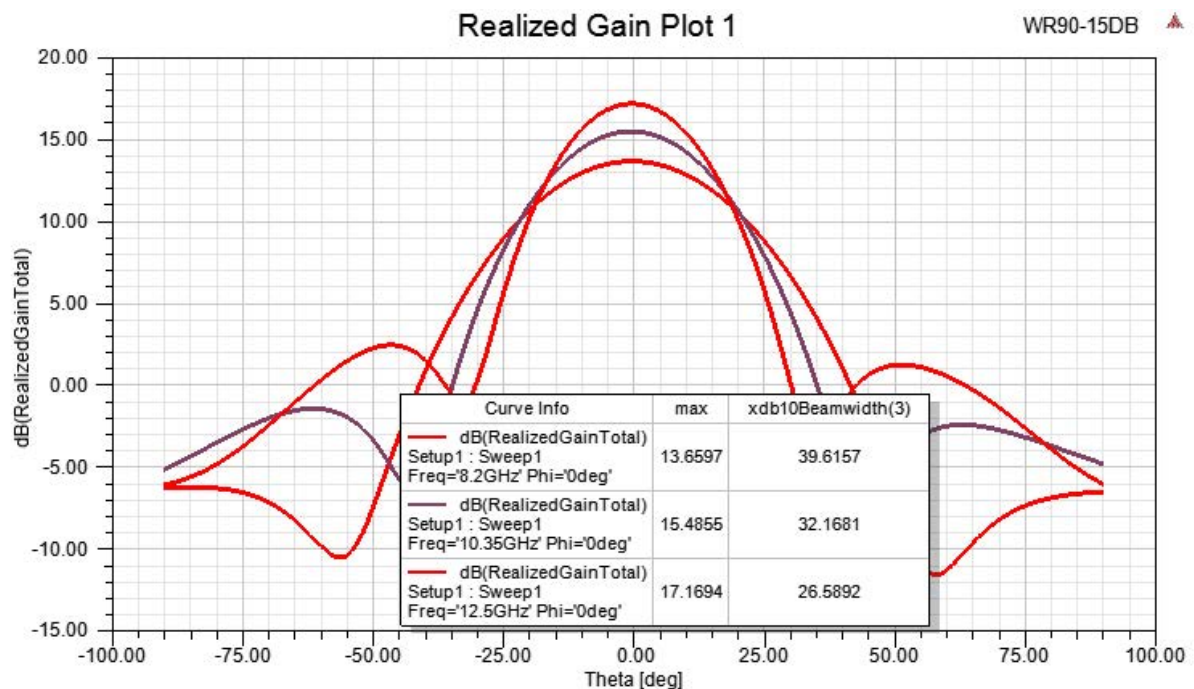
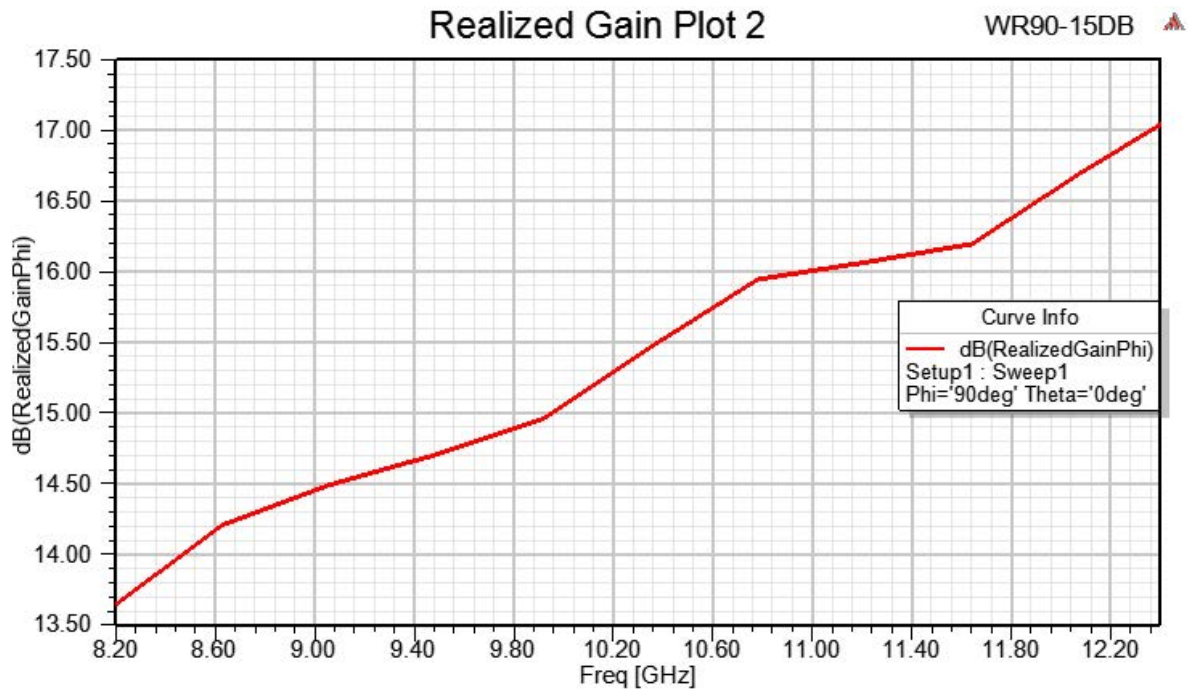
**Typical Performance Data**



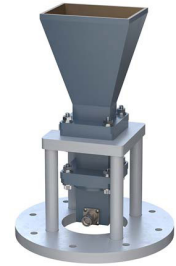
WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount



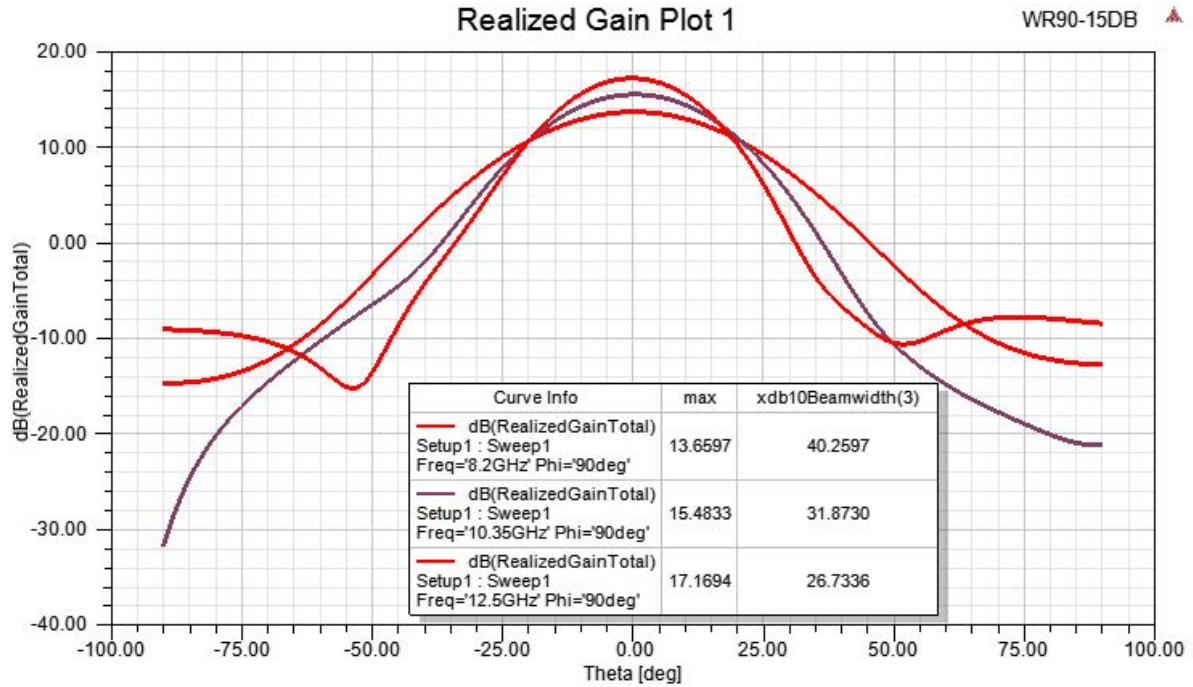
**FM1WAN090-15SM**



WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount



**FM1WAN090-15SM**



WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

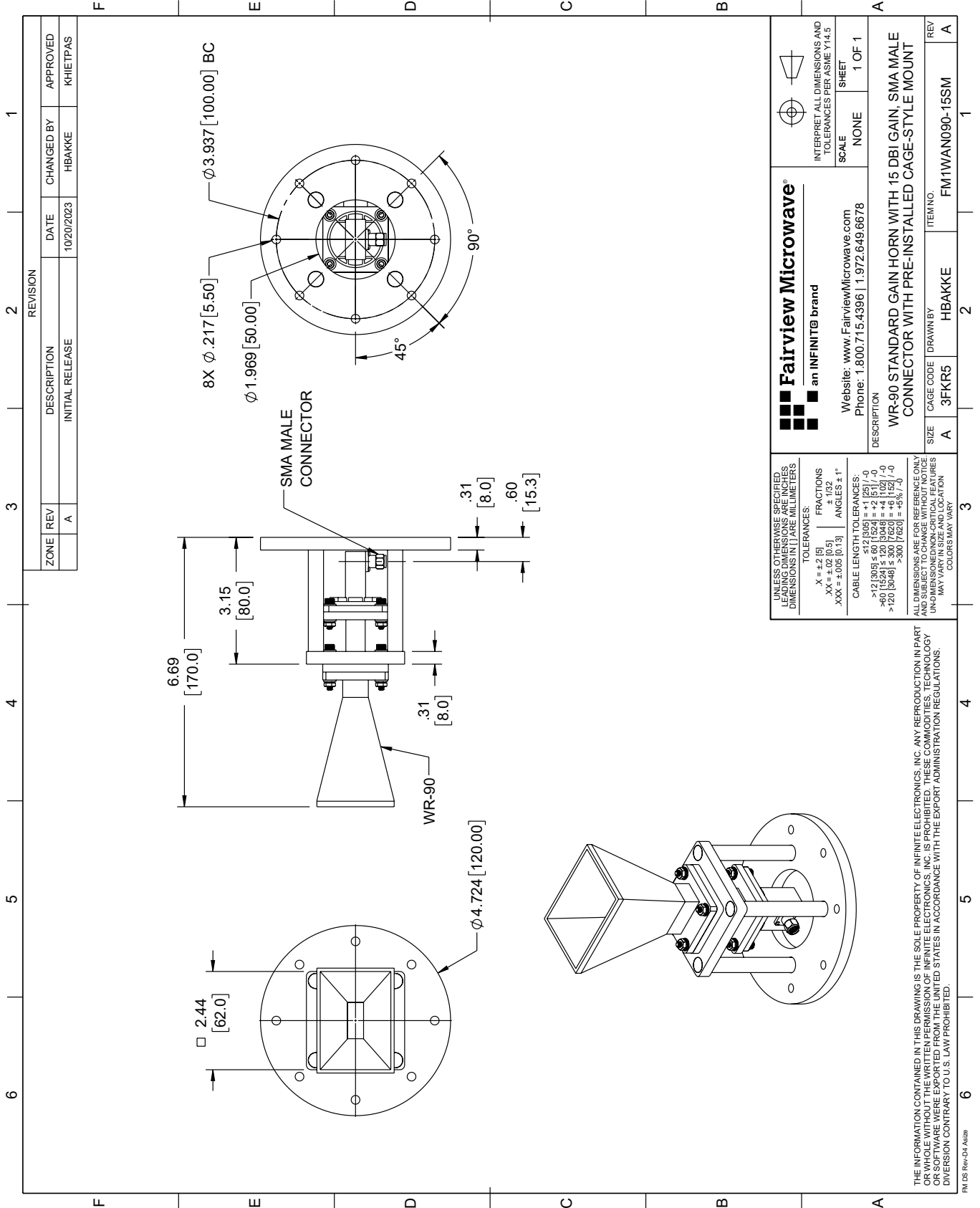
For additional information on this product, please click the following link: [WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount FM1WAN090-15SM](#)

URL: <https://www.fairviewmicrowave.com/wr-90-standard-gain-horn-with-15-dbi-gain-sma-male-connector-integrated-cage-style-mount-fm1wan090-15sm-p.aspx>

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# FM1WAN090-15SM CAD Drawing

WR-90 Standard Gain Horn with 15 dBi gain, SMA Male connector, Integrated Cage-Style Mount



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION	INITIAL RELEASE	
	A			KHETTPAS

**Fairview Microwave®**  
an INFINIT® brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
Phone: 1.800.715.4396 | 1.972.649.6678

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5  
SCALE: NONE  
SHEET: 1 OF 1

DESCRIPTION: WR-90 STANDARD GAIN HORN WITH 15 DBI GAIN, SMA MALE CONNECTOR WITH PRE-INSTALLED CAGE-STYLE MOUNT

SIZE: A  
CAGE CODE: 3FKR5  
DRAWN BY: HBAKKE  
ITEM NO.: FM1WAN090-15SM  
REV: A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [0.5]  
 .XXX = ±.005 [0.13]  
 FRACTIONS ±.1/32  
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:  
 ≤ 12 [305] ±.005 [0.125]  
 > 12 [305] ≤ 60 [1524] ±.004 [0.102]  
 > 60 [1524] ≤ 120 [3048] ±.004 [0.102]  
 > 120 [3048] ≤ 300 [7620] ±.004 [0.102]  
 > 300 [7620] ±.005 [0.125]

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR THE DIMENSIONS OF THE PARTS. DIMENSIONS OF NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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FM DS Rev-D4 Alt2